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CHILD HEALTH INSTITUTE (CHI)
AND
INTERNATIONAL CHILD CARE (ICC)

Final Evaluation of the Child Health Project

/CC/CAT-PSC, Zone III

Area of Nippes

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PREFACE

The final Evaluation of the Child Health Project, International Child Care (ICC), CAT-PSC, Zone III was conducted and realized by the Child Health Institute (CHI) from September to November 1996.

The results obtained are contained within the following pages in four (4) parts:

- The first part describes the realizations of the project. It derives from the statistics provided by the administration of the project.
- The second part demonstrates the results obtained from the survey realized in the areas served by the project.
- The third part clearly states the problems encountered and the acquired experiences.
- The last part includes the provisional budget and the expenses incurred during the execution of the project.

In October 1992, International Child Care implemented a Child Survival Project which included the following aspects: nutrition and promotion of maternal breast-feeding, struggle against diarrhea, vaccination, family planning and AIDS prevention. This project was put in place to the benefit of the population of Petite Rivière de Nippes, Anse à Veau and Petit-Trou de Nippes. The activities ended during the month of August 1996. It was therefore necessary to evaluate the level of realization of the project objectives. The execution of this research was carried out by the Child Health Institute (CHI) from September to October 1996.

The results were considered in two different ways:

- a) analysis of statistics of services
- b) final survey of the population served

A) VACCINATION OF CHILDREN UNDER ONE YEAR AND WOMEN 15-49

The project had planned to:

- Vaccinate 60% of infants with BCG, 50% with DTP3, Polio3, measles and 55% of women 15-49 with TT2.
- Organize 2025 rally posts.

According to the data found from different administrative reports, these objectives were reached at **132% for BCG, 108% for DTP3, 91% for Polio3, 55% for measles and 30% for TT2.**

According to the data of the survey, the vaccination coverage of children reached 97% **for BCG, 31% for DTP3 and Polio3**, 6% too low compared to the absolute figures of the administrative report. The objective of immunization for women age 15-49 was realized at 62%.

1776 rally posts were organized, which represent a realization of 88% of the planned objective.

B) VITAMIN A

The following objectives were planned:

- Provide 50% of children aging from 6 months to 6 years with two doses of Vitamin A
- Provide 80% of breast-feeding mothers with one dose of Vitamin A.

According to the statistics of the project, the planned objective has been reached at 80% for nursing mothers while survey results indicate 46% coverage with Vitamin A for children and 13% for nursing mothers.

C) NUTRITIONAL SURVEILLANCE

The following objective was planned:

- Organize weight monitoring sessions for 80% of children age 0-23 months. This objective was not measured from the administrative data. However, according to the data of the survey only 1% of infants was weighed as recommended.

D) MATERNAL HEALTH

The following objectives were planned:

- Provide 70% of pregnant women with four(4) prenatal visits. The first visit being performed during the first trimester of the pregnancy.
- Provide trained TBA assistance for 90% of the deliveries.
- Recruit 625 women for family planning.

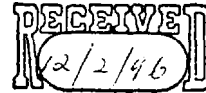
Scheduled maternal care activities were not reached because of the unavailability of funds in the project budget. However, the survey shows that 6% of the pregnant women have benefitted of the



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November 29, 1996



Ms. Cathy Janes Bowes
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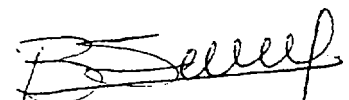
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Dear Cathy,

As requested, I am pleased to forward to you through DHL three copies of the final evaluation of the ICC's Child Survival Project. Because of some constraints that the external evaluator has met these last days I was not able to mail them in such a way that they arrive at your office before (or at) the latest date Nov. 30, 1996. I apologise for that and I hope that this one-day lateness will not cause you too much trouble.

If you have any questions regarding this evaluation, please feel free to contact me at ICC or Dr. Michel Cayemittes at the Child Health Institute.

Best regards,


Blaise Sévère, MD, MPH

recommended number of prenatal cares. About 59% of women delivered with the assistance of a trained TBA and contraceptive prevalence with the women reached 16%.

E) ORAL REHYDRATION THERAPY

The project was planned to:

- Educate 80% of mothers on the preparation and administration of oral serum;
- Educate 80% of mothers on the normal utilization of liquids and solids during episodes of diarrhea;
- Establish at least 75 points of sale of ORT packets,

According to the administrative reports, the scheduled points of sale were established at 85% **and only** 52% of them were operating at the end of the activities. Moreover, according to the survey results, only 10% of mothers knew how to correctly prepare and administer the oral serum.

F) TRAINING

The project was planned to train:

- 14 staff members on the principal activities to be realized;
- 75 health promoters;
- 90% of recruited and not yet trained TBAs.

Analysis of the administrative data revealed that the planned objectives were realized at 85% **for the promoters' training and 46% for TBA's training.**

As previously stated, the results are different regarding the approach. As a matter of fact, in major cases, the coverages calculated from the administrative statistics were over estimated. This over estimation is due to the introduction of two (2) types of bias in the determination of target groups:

a) *Under-estimation of the **target** population.*

The census had a high rate of omission. In addition, the data base was never updated.

b) *Delivering services to non-assigned group.*

A large part of the people who usually went to the rally posts, were living out of the intervention area of the project.

Briefly, the degree of achievement of planned objectives was generally acceptable, even if in some cases the results obtained were not quite fulfilled. The causes of low performance are multiple:

- 1) Political context not always favorable to the execution of activities;
- 2) Difficulty to recruit, on time, the necessary staff and keep them permanently;
- 3) Non execution of some planned activities, more precisely the prenatal visit activities and family planning;
- 4) Unrealistic objectives.

Nevertheless, the comparison of the project accomplishments to the findings of the initial survey shows that much progress has been realized. However, the request for services provided is still necessary in the areas served and supports the continuation of the activities if they have to be reinforced.

BACKGROUND

In October 1992, International Child Care implemented, in the Nippes area, a Child Survival Project extended over a period of three (3) years. Due to some early constraints, the activities planned for the first year could not be fully realized. The primary goals reached during the first year were:

- ✧ The organization of the initial survey and the census
- ✧ The recruitment and training of the staff
- ✧ The implementation of physical structures - Acquisition of some materials

The health activities attended in October 1993.

The project activities started during an unstable political period. Many logistical problems were encountered due to the sanctions imposed on Haiti by the International Community. The level of the project's achievements were considered satisfactory, when taking into account the difficult context in which the project evolved. A mid-term evaluation conducted in December 1994 demonstrated the level of those results.

GOALS AND OBJECTIVES

✧GOAL

Reduce the infant mortality and morbidity rate by improving the children and mothers' quality of life through a Child Survival Project.

✧OBJECTIVES

Vaccination

- To organize 375 rally posts during the first year, 825 during the two following years.
- Children under one (1) year: BCG 60%; DPT3 50%; OPV3 50%; MEASLES 50%
- Women from 15 to 49 years old: TETOX3 55%

Vitamin A

To ensure a partial coverage of Vitamin A (2 doses) for 50% of children ages six (6) months to six (6) years during the first year and maintain a complete coverage for the same aforementioned target group during the next two years.

To perform a complete coverage in Vitamin A (1 dose) for 60% of breast-feeding women, 70% during the second period, 80% during the last year.

Nutritional Surveillance

To weigh 80% of the infants between the age of 0 to 23 months at least four (4) times during the first year, six (6) times during the second, and eight times during the third year.

Maternal Health

To provide 70% of pregnant women with a prenatal visit during the first trimester of the pregnancy and three others before delivery.

- 70% of pregnant women will have the assistance of a TBA who uses good delivery practices; 80% during the second year and 90% during the third.

To recruit 375 (3% of women in child-bearing age) individuals accepting the modern family planning methods during the first year, 625 (5%) the second and 625 (5%) the third.

Oral Rehydration Therapy

Educate:

80% of the mothers on how to prepare and correctly administer the oral rehydration solution (pack and home made);

80% of the mothers on the normal use of liquids and solids during the episodes of diarrhea.

To establish at least 75% points of sale of ORT packets.

Training

To train:

14 staff members on the Project activities

75 Health Promoters

90% of TBAs not previously trained on correct delivery practices,

Health education

To train:

50% of the 15-49 years old women on the basic nutrition, vaccination, hygiene, oral rehydration therapy and family planning principles.

60% of mothers with 0-23 months old children on the interpretation of the weigh curve and the knowledge of the factors affecting their child's nutritional status.

Organize:

375 health education sessions during the first year and 550 during the following years.

The above objectives were stated in the initial document. As they were too ambitious, they have been revised in the different annual plans.

PROJECT AREA

The project operates in three (3) rural districts of Nippes area: Petite Rivière de Nippes, Anse à Veau and Petit Trou de Nippes. It covers ten (10) rural sections of these rural districts:

► **Petite Rivière de Nippes (3)**

1e Fond des Liannes

2e Cholette

3e Syllegue

► **Anse à Veau (5)**

1e Baconnois

2e Arnault

3e Baquet

6e Grande Riviere

7e Saut du Baril

► **Petit-Trou de Nippes (2)**

1e Raymond

2e Lievre

All of the communities in the Nippes area are not easily accessible. Access to the principal zones of operation of the project was very difficult due to the frequent flooding the “Grande Riviere de Nippes”

The aforementioned area has especially been chosen due to the absence of health care structures in the rural districts. The existing health care centers are located in the small towns of Petite Riviere de Nippes, Anse à Veau and Petit Trou de Nippes towns and are significantly under equipped.

DEMOGRAPHIC ASPECT

The project serves a population of 54.740 people:

TABLE 1

DISTRIBUTION OF POPULATION BY AREA AND SITE

<i>RURAL DISTRICT</i>	<i>RURAL SECTION</i>	<i>SITE</i>	<i>HOUSEHOLD</i>	<i>POPULATION</i>
PETITE RIVIERE DE NIPPES	1 ^{ère} Fond des Liannes	14	878	3604
	2 ^e Cholette	9	663	2616
	3 ^e Syllègue	6	1173	4440
ANSE A VEAU	1 ^{ère} Baconnois	32	2014	8992
	2 ^e Arnault	31	2495	10168
	3 ^e Baquet	16	574	2403
	6 ^e Grande-Rivière	34	1714	7305
	7 ^e Saut du Baril	29	818	3299
PETIT TROU DE NIPPES	1 ^{ère} Raymond	59	1842	7185
	3 ^e Lièvre	27	1239	4738
TOTAL	10	257	13349	54740

Sources : Census of Population Project - August 1993

TABLE 2

DISTRIBUTION OF POPULATION THRU AGE GROUP

DISTRICT	RURAL SECTION	0 - 11 months		0 - 23 months		2 - 6 years		15 - 49 years	
		#	%	-	J - T	#	%	#	%
PETITE RIVIERE DE NIPPES	1 ere Fond des Liannes	99	2.74	223	6.18	432	11.98	725	20.11
	2e Cholette	81	3.09	186	7.11	335	12.8	506	19.34
	3e Syllègue	158	3.55	306	6.89	492	11.08	934	21.03
ANSE A VEAU	1 ere Baconnois	202	2.24	565	6.28	1039	11.55	1482	16.48
	2e Arnault	259	2.54	654	6.43	1224	12.03	1892	18.6
	3e Baquet	65	2.7	145	6.03	294	12.23	453	18.85
	6e Grande Rivière	199	2.72	466	6.37	945	12.93	1396	19.11
	7e Saut du Baril	107	3.24	177	5.36	406	12.3	648	19.64
PETIT TROU DE NIPPES	1ere Raymond	262	3.64	521	7.25	831	11.56	1301	18.1
	3e Lièvre	159	3.35	328	6.92	640	13.5	951	20.07
TOTAL		1591	2.88	3571	6.52	6638	12.12	10288	18.79

Sources : Census of Population Project - August 1993

PROJECT MANAGEMENT

The health activities of International Child Care in the Southern region of Haiti are headed by an office which also coordinates the Child Survival Project. Due to the poor means of communication (bad roads, lack of telephone lines and vehicles), the links between this office and the field staff were often very difficult.

At the end of the project, the established field staff was as follows:

- One doctor
- One administrator
- One supervisor
- One educator
- Five vaccinators
- Five animators
- One office guard

The project was divided into five (5) areas serving all of a part of the ten (10) rural districts.

TABLE 3

INSTITUTION CATCHMENT AREA BY RURAL SECTIONS AND DISTRICTS

AREAS	RURAL SECTIONS	DISTRICTS
AREA I	<i>1ere Fond des Liannes</i>	<i>Petite Rivière de Nippes</i>
	<i>2e Cholette</i>	<i>Pefite Rivière de Nippes</i>
	<i>3e Syllègue</i>	<i>Petite Rivière de Nippes</i>
AREA II	<i>6e Grande Rivière</i>	<i>Anse-Q-Veau</i>
	<i>7e Saut du Baril</i>	<i>Anse-à-Veau</i>
AREA III	<i>1ere Baconnois (en partie)</i>	<i>Anse-à-Veau</i>
	<i>2e Arnault (en par-he)</i>	<i>Anse-à-Veau</i>
	<i>3e Baquet</i>	<i>Anse-à-Veau</i>
AREA IV	<i>1ere Baconnois (en pat-he)</i>	<i>Anse-à-Veau</i>
	<i>2e Arnault (en partie)</i>	<i>Anse-à-Veau</i>
	<i>3e Lièvre</i>	<i>Pefit Trou de Nippes</i>
AREA V	<i>1e Baconnois (en partie)</i>	<i>Anse-à-Veau</i>
	<i>7ere Ravmond</i>	<i>Pefit Trou de Nippes</i>

REALIZATIONS

1 . VACCINATION

Rally posts

TABLE 4

RALLY POSTS				
	Ott 93 - Sept 94	Ott 94 - Sept 95	Ott 95 - Aug 96	Ott 93 - Aug 96
Realization	744	559	473	1776
Objective	375	825	825	2025
Percentage	198.4	67.76	57.33	87.7

The number of planned posts were reached at 87.7%. However, the performance obtained can be considered fair. The number of vaccination posts reached during the first year is considerably high in comparison with the initial objective of 375. This objective has been modified and brought up to 779 for the current year.

This performance could not be maintained at the same level due to the launching of other activities. In addition, some key people to the Project, as the educator and one vaccinator, had health problems resulting from vehicle accidents and were therefore not present at work for a relatively long period of time. It was not easy to replace them.

Vaccine Administration

TABLE 5

Vaccination of Infants under one (I) and women 15-49					
DATE	BCG	DTP 3	POLIO 3	MEASLES	TT 2
Oct.93 - Sept.94	2842	1363	1369	957	3110
Oct.94 - Sept.95	1840	1117	652	591	1643
Oct.95 - Aug. 96	1382	945	788	483	2070
TOTAL	6064	3425	2809	2031	6823

TABLE 6

VACCINATION (Realization during the third year)					
	BCG	DTP 3	POLIO 3	MEASLES	TT 2
Number of Vaccines	1382	945	788	483	2070
Target group	1050	875	875	875	6875
Realization	131.62%	108%	90.06%	55.20%	30.1 1%
Objective	60%	50%	50%	50%	55%

Except for the Tetanus Toxoid, the expectations the vaccination program were met. The high campaign undertaken by the Ministry of Health in 1993 has reduced our expected rate of anti-measles vaccination.

Two factors could explain the high level of the vaccination percentage:

1. A large part of the people who received the dose were not part of the intervention zone;
2. Twenty nine (29) sites were not registered during the census for they were supposedly served by a Health Care center from their own area. These individuals regularly go to the rally posts.

Services could not be refused to them thus, the vaccinators usually included them in their reports.

Women within child-bearing ages represented the most difficult accessible target group. The implementation of school vaccination allowed a light improvement. The expected door to door vaccination was never been made possible for sundry logistical problems were encountered. However, it remains a good solution to improve the coverage of Tetanus Toxoid.

In addition the sites omitted during the last census must be registered.

2. VITAMIN A

2.1 **Children (6 months - 6 years of age)**

During the three (3) years of the project, the objectives of distributing Vitamin A to children from 6 months to 6 years of age were generally reached. However, children over the age of 5 who did not go to the vaccination posts were reached during the home visits.

TABLE 7

	<i>DISTRIBUTION OF VITAMIN A (Children 6 months to 6 years)</i>		
	Oct.93 - Sept.94	Oct.94 - Sept.95	Oct.95 - Aug. 96
Quantity of capsules distributed	7808	6286	8664
Planned quantity	9420	13160	13160
Realization	82.89%	47.77	65.84%
Objective	50%	50%	50%

2.2 Breast-feeding women.

It was very difficult to administer vitamin A to the breast-feeding women due the rally posts within the thirty (30) days following the delivery. The vaccinators were only capable of visiting the women living in the neighborhood of a rally post.

As a matter of fact, according to the Haitian rural tradition, women must stay home until the 41st day after the delivery. Distribution of Vitamin A during home visits widely contributed to the improvement of performance during last year. Health promoters and trained TBAs who were usually aware of the births were included in this task.

TABLE 8

	<i>DISTRIBUTION OF VITAMIN A (Breast-feeding women)</i>		
	Oct.93 - Sept.94	Oct.94 - Sept.95	Oct.95 - Aug. 96
Quantity of capsules distributed	152	239	584
Planned quantity	788	788	788
Realization	19.29%	30.33%	74.11%
Objective	60%	70%	80%

3. NUTRITIONAL SURVEILLANCE

3.1 Weight control

An average of 7601 infants (66.54%) have been weighed during the three years project. It was planned to weigh 80% of infants 0-23 months aged, 4 times during the first year, 6 during the second, and 8 during the third.

Our health information system does not allow us to specify how many times infants were weighed in the course of one year. However we can state that each infant was weighed at least three times in one year. The level of achievement of the objectives cannot be measured in the way they were originally stated.

TABLE 9

NUMBER OF WEIGHED CHILDREN/EXPECTED NUMBER			
DATE	weighed children (#)	Expected #	Percentage
Oct.93 - Sept.94	9223	11424	80.73
Oct.94 - Sept.95	6424	11424	56.23
Oct.95 - Aug. 96	7157	11424	62.65

3.2 Nutritional status

As shown in the following table, the nutritional status of children under the age of 2 did not considerably improve. However, it has been noted that the malnourished children cases tend to lightly decrease from year to year.

TABLE 10

Nutritional Status of Infants 0-23 months weighed in rally posts									
DATE	Norm	%	M 1	%	M 2	%	M 3	%	TOTAL
Oct.93 - Sept.94	6129	49.06	4734	37.89	1407	11.26	223	1.78	12493
Oct.94 - Sept.95	4856	51.84	3391	36.20	1031	11.01	90	0.96	9368
Oct.95 - Aug. 96	4441	56.29	2806	35.56	604	7.66	39	0.49	7890
Average	5142	51.85	3644	36.74	1014	10.22	117	1.18	9917

The number of malnourished children is generally higher after one year of age. The project encourages exclusive breast-feeding during the first three(3) months. The rural families traditionally do so on a longer period, sometimes up to 12 months. Then, children over 12 months of age become vulnerable to malnutrition.

Special attention was paid to the serious malnutrition cases. Home visits were performed for monitoring and reinforcement of health education. The issue remained the insufficient time for vaccinators and animators to perform their tasks.

Monitoring and health education were not sufficient to expect a real recuperation of these serious malnutrition cases.

Catholic Relief Services (CRS) has implemented, in the Nippes, area a nutritional recuperation program. ICC developed a partnership with this Organization through the Child Survival Project and

collaborated by referring the cases to the health facilities where the recuperation were performed.

4. MATERNAL HEALTH

One of the objectives of the project was to provide the communities with modern Family Planning and prepost-natal care technics. This was to be done in collaboration with PROFAMIL, a NGO specialized in the field of Family Planning. Unfortunately, this component was never fully realized as the project budget did not have provision to cover all the costs of the activities. Additional funds were pursued but remained unreachable. However, people from Anse à Veau and Petite Riviere de Nippes benefitted from two (2) three-day sterilization campaigns on March and September 1994. 119 tubal ligations and one (1) vasectomy were performed.

A training/reorientation session for the TBAs was developed. Women from Petite Riviere de Nippes and Anse à Veau can now have a TBA with accurate delivery practices at their disposal . However, most registered TBAs were not yet trained.

Maternal health activities were specifically focused on maternal information and education.

5. ORAL REHYDRATION THERAPY

This activity strictly emphasized on education and the establishment of oral serum points of sale. From seventy five (75) planned points of sale, sixty four (64) (85,3%) were installed. Only 39 of them were active at the end of the project. Local health promoters were responsible for the points of sale.

It remained difficult to obtain an exact report on the functioning of these points. Moreover, mothers will not buy oral serum if they know that other organizations assure free distribution. Nevertheless it was noted that mothers have a good understanding of the importance of therapy through oral rehydration and that it was used during their children's episodes of diarrhea.

TABLE 11

<i>ESTABLISHED SALE POINTS OF ORAL SERUM ORAL</i>	
October 93 - September 94	25
October 94 - September 95	25
October 95 -August 96	14
TOTAL	64

6. TRAINING

6.1 Health Promoters Training

TABLE 12

<i>TRAINING AND RETRAINING OF HEALTH PROMOTERS</i>		
DATE	Number of promoters	Number of days
October 93 - September 94	92	7
October 94 - September 95	54	10
October 95 -August 96	107	16

Health promoters training started on April 1993. The seventy five persons selected were familiarized and trained, on a period of five(5) weeks, on the main subjects of the project. As the project ended, eighty eight (88) were operating on one hundred and two (102) vaccination posts.

One of the promoters' major responsibilities was to weigh the 0-23 months children and to register their weight and their chart. They were also responsible for the preparation of the rally posts and the motivation of the defaulters.

Many of those health promoters were unable to accomplish their task after their training and then were progressively replaced. They received a productivity bonus for the work performed but clearly pointed out that they should have received a salary, as the regular employees. It is commonly known that people do no longer want to volunteer their time, as usually done in with the past, due to the severity of the socio economic problems.

6.2 TBAs Training

In August 1993, one hundred and forty one (141) TBAs registered in the project area. In collaboration with the local staff of the Ministry of Health, fifty eight (58) TBAs were trained and reoriented. Of the planned objectives (90%), this total represents 41.13% of TBAs trained to the correct delivery practices and a realization of 45.7%.

Training activities started in the middle of the second year. It was not easy to convince most of the TBAs. The general tenet was that it was a new way to have control over their revenues. The TBAs' kit was provided by World Health Organization and the monitoring was provided by the local staff of the Ministry of Public Health and the staff of the project.

TABLE 13

TRAINING AND RETRAINING OF TBAs			
DATE	TRAINED	RETRAINED	REGISTERED
October 93 - September 94	21	15	-----
October 94 - September 95	-----	-----	-----
October 95 - August 96	22	-----	-----
TOTAL	43	15	141

7. HEALTH EDUCATION

7.1 Education of mothers in rally posts

After the weight of the child was registered each mother was given an individual advice: an average of 74.64% on exclusive breast feeding and 106.08% on the other factors influencing the child's nutritional status. The objective of reaching 80% of mothers for the educational sessions was reached.

TABLE 74

NUMBER OF ADVISED MOTHERS BY SUBJECT							
DATE	Excl breast-feeding	Nutrition	Diarrhea/ ORT	Environ. Hygiene	FP	Total of advised mothers	Total meres rencontrées
Oct.93 - Sept.94	2432	8445	1439	4500	2814	12115	14038
Oct.94 - Sept.95	1639	5579	1077	2906	1731	7943	9794
Oct.95 - Aug. 96	1712	4436	1131	2786	1968	7776	7817
Average	1928	6135	1216	3397	2171	9278	10550

TABLE 15

NUMBER OF ADVISED MOTHERS / EXPECTED NUMBER						
DATE	Exclusive breast-feeding			Nutrition and other factors affecting nutritional status		
	Realized	Planned	Percentage	Realized	Planned	Percentage
Oct.93 - Sept.94	1824	1696	107.55	4299	4288	100.26
Oct.94 - Sept.95	1639	2528	64.83	6304	5712	110.36
Oct.95 - Aug. 96	1712	2528	67.72	6064	5712	106.16
Average	1725	2251	76.64	5556	5237	106.08

7.2 Health education sessions

The three-year objectives were not reached. However, some improvement could be observed last as a result of educational activities for the school children.

Main interventions were concentrated at the rally posts where the vaccinator had the entire responsibility. Segregation of duties with the animator would alleviate the task.

TABLE 16

SANITARY EDUCATION MEETINGS				
Number of Sessions				
DATE	Realized	Planned	Percentage	Number of participants
Oct.93 - Sept.94	30	375	8	287
Oct.94 - Sept.95	72	550	13.09	-----
Oct.95 - Aug. 96	194	550	35.27	4346

7.3 Community activity

Ten out of twenty five of mothers' club and six of health committees were formed during the period of October 1994-September 1995. None of those groups is really working.

I. HISTORY

The Nippes area is located in the southern peninsula of the Republic of Haiti. It is joined to the Grand-Anse department and is the fulcrum of the villages of Petite Rivière de Nippes, Anse a Veau and Petit Trou de Nippes. It is a poor area, with difficult access during rainy periods. Agriculture constitutes an essential activity and the main food production is: cereals, vegetables and fruits, depending upon seasons variations. Nevertheless agricultural production is not always sufficient to cover essential food needs. Consequently, the majority of the population with very low income does not have access to these food.

Furthermore, although the population is mostly rural, the rare available public services are concentrated in towns. Most of the people living in the region do not have drinking water, latrines, schools and common health services. Public health infrastructures located in urban areas lack materials and medicines and are unable to effectively take in charge emerging health problems.

People are then exposed to all kind of diseases.

With this project the International Child Care became responsible of community health project in order to improve the health of the mother and her children. This project focused on the Child Survival Program activities. Nevertheless, before their implementation, it was necessary to estimate about mothers' knowledge, attitudes and practices regarding those activities. This information was necessary to conceive a plan of action based on real needs and served to evaluate the performance accomplished at the end of the activities. All of these considerations justified the execution of the basic survey conducted between March 24 and 27, 1993. The results effectively helped starting the health project which lasted about two years, from October 1993 to August 1996.

The project activities having presently ended, Child Health Institute (CHI) was contacted in order to conduct a final evaluation.

2. GOAL AND OBJECTIVES OF THE SURVEY

GOAL

To determine the performance of the project.

Specific objectives

To estimate the level of achievement in the following areas:

- vaccination
- diarrhea
- nutrition/breast feeding
- family planning
- control of pregnancy.

3. TARGET POPULATION

It was formed of a group of mothers, ages 15-49, having at least one child, ages 0-23 months, at the time of the survey and living in the areas served by the project, specifically in the villages of Petite Rivière de Nippes, Anse-à-Veau and Petit Trou de Nippes. Mothers with children 0-23 months old were the observation....

4. METHODOLOGY

a) Data collection instrument

In order to compare the results, the same questionnaire used during the basic survey was used for this study with some minor modifications in order to measure the achievements of the project. A questionnaire prepared by the Child Survival Support Program (CSSP) in collaboration with International Child Care (ICC) was used. Questions referred to:

- demographic and educational characteristics;
- knowledge, attitude and practices regarding nutrition and breast feeding;
- growth monitoring and Vitamin A coverage;
- knowledge and practices on diarrhea control
- maternal care and vaccination against tetanus toxoid
- practices regarding family planning and delivery
- AIDS prevention

participation of community groups

b) DETERMINATION OF THE SAMPLE SIZE

The sample size was calculated from the following formula:

$$n = z^2 pq/d^2$$

for n = sample size; z the degree of chosen certitude; p = prevalence, the coverage or the level of estimated knowledge, and d = expected precision.

With $z = 1,96$, $p = 50\%$, $Q = I-P$, $d = 0,10$, the size would be around 100. To take into consideration the cluster effect and even the non response rate, the size has been tripled, i.e brought up to 300.

5. SELECTION OF THE SAMPLE

The necessary sample were selected according to the methodology of the basic survey, i.e by applying the cluster sample methodology proposed by the World Health Organization (WHO), Therefore the 300 mothers were selected within a total of 30 clusters, with an amount of ten (10) mothers per cluster.

Each locality reached by the project was considered as a cluster.

Twenty six (26) clusters from the previous survey were again visited during this study. Four (4) of them were not concerned by the project interventions. They were eliminated during this survey and replaced by four (4) others taken at random a list of the covered sites.

SURVEYMANAGEMENT

In addition of the CHI technical staff in charge of activities, a temporary staff was employed for data collection and processing activities.

For data collection

six (6) teams of two (2) surveyors each assisted by a supervisor.

For data entry

one analyst/programmer

two operators

STAFF TRAINING

A curriculum for supervisors and surveyors was prepared by CHI technical staff.

The training lasted three (3) days and emphasized the following points:

- goal and objective of the survey
- introduction and interview technique
- Clusters entry and selection of the first house to be visited
- Analysis of the questionnaire content
- filling of the questionnaire

METHODOLOGY

a) Training

In class training: presentation, workshop, simulation.

At the end of the training, the staff in charge of the data collection went to the field for interview technique exercises.

b) Data collection

The data collection was conducted from September 08 to September 12, 1996 and was executed by the two teams, each of them supervised by a team leader. Technical activities coordination was ensured by two (2) professionals from CHI, assisted by the Project Manager in the Nippes area for administrative aspects.

c) Comparison with the previous survey

In comparison with the basic, the following data was used:

- the same population;
- the same methodology to select the sample;
- the same number of interviewed people;
- the same data collection instrument

SURVEY RESULTS

A. SAMPLE DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS

As shown in **table #I**, the basic sample characteristics do not differ from the population's selected for this study. The two groups, indeed, have about the same age, structure, and are characterized to have an average age of 29. They have, more or less, the same educational level, represented by an important number of illiterates (52%), even if in the second group a light improvement was observed among mothers with advanced primary education level and also those with secondary or university level. Also, the portion which said having an activity out of the family remained the same in the two studies (48%).

Furthermore, the children targeted by this survey were lightly older than those registered during the first study. The average of age was 11,1 months compared with 9,2 months for those surveyed in 1993.

PROJECT ACHIEVEMENTS

The results obtained are presented in table #IA and depict the following realizations:

a) Vaccination of children age 1

The planned vaccination objectives were reached at nearly 100% for BCG and at a low level for the other types of vaccine, i.e 31% for DTP3 and polio3 and 6% for measles.

b) Vitamin A

Because older children's cards (6 months to 6 years) were being lost, it was impossible to determine their Vitamin A coverage. However this indicator was considered for infants age 6-23 months. The following results were obtained:

Only 50 infants of this group received the necessary Vitamin A doses (2), which represent a coverage of 23%. The expected objective for Vitamin A was 50% therefore, the degree of achievement is 46%. With regard to breast-feeding mothers, the project had planned 60% of Vitamin A coverage. According to the survey results, only eight (8) persons received one Vitamin A dose during their lactation period, that is to say a realization of 13% of the planned objective. Among those who have a vaccination card, this coverage reached 20%.

c) Nutritional surveillance

Within the context of this activity, it was planned to weigh at least eight (8) times 80% of infants age 0-23 months during the last year of the project. The degree of realization of this objective was followed for only 0.8% of those children.

d) Maternal health

The project should offer at least one prenatal visit to 70% of pregnant women during the first trimester of pregnancy and three (3) other visits before delivery. According to the results of the final survey, this criterion was followed for only 7% of the pregnant women, i.e a realization of 6% of the planned objectives. In addition, the tetanus toxoid objective was reached at 62%.

Moreover, 90% of the deliveries should be assisted by trained TBAs. Thus, among 299 mothers who were informed on the subject, 158 delivered with the assistance of a trained TBA; statistics which represent an attainment of 53% and a degree of achievement of 59% of the planned objective.

e) ORAL REHYDRATATION THERAPY

Among 35 mothers who use the oral rehydration solution during their child's episodes of diarrhea do so correctly; which represents an accomplishment of 6%. With regards to the home made oral solution, only 12 mothers among 46, i.e 26% used it as recommended. Let us notice that the standard for oral rehydration therapy has been settled at 80%. This low performance was certainly due to inaccessibility of the product, because among the 75 points of sale which should be established, 64% were put in place and only 39 of them were regularly supplied during the last year of the project.

Finally, among the 136 infants who have had an episode of diarrhea within the three months preceding the survey, the frequency of liquid and solid consumption was normal for only 15% of them. Concerning this activity, an objective of 80% at the end of the project was planned.

f) Training

As seen above, the degree of accomplishment of the planned objectives was relatively low as a whole. Explanations are given in detail in part 3 of the report. The most important factors are summarized as follow:

1) Political context not always favorable to the execution of the activities

Because of socio-political troubles, the project was obliged to, many times, postpone work sessions at the rally points. In addition, due to the economic sanctions, some equipments and material essential to the functioning of the project were not available on time.

2) Difficulties of recruiting necessary staff and keeping them on a permanent basis.

The vaccination team lost one member who was victim of a serious work accident. It was really difficult to hire and train another substitute. In addition, the project functioned without field director for the last 6 months of 1995.

3) Inaccessibility of some of the sites during rainy periods

When flooding, "Grand Riviere de Nippes" was very difficult to cross in order to reach many sites,

4) Non execution of some planned activities

With regard to this project, it was planned to provide the target groups with prenatal care and family planning services. However, due to a lack of funds, those activities were unable to be realized.

5) Weighing objective too ambitious

It was the project objective to realize eight (8) weighings per child during the last year. However, with the limited resources, only four (4) gathering points could be visited during one year. That means the project was unable to provide more than four (4) weightings per child.

Despite those constraints, when comparing the results between the basic and the final surveys, an improvement of the knowledge, attitudes and practices regarding maternal and child health was noticed.

Below, are the evaluation of the mothers' knowledge, attitudes and practices evolution regarding many components of the project.

B. MOTHERS' KNOWLEDGE, ATTITUDES AND PRACTICES REGARDING NUTRITION AND BREAST-FEEDING

Mothers' breast-feeding practice were compared in both surveys. The results are presented in table #2.

The proportion of breast-feeding mothers decreased from 85% in the basic study to 77% in this one. This represents a reduction of approximately 10%. This reduction can be explained by the difference observed in the age and the structure of the two groups children. The difference between their average of age is indeed statistically significant and indicates that the second group was in fact older. Therefore those children were mostly at their weaning period. Despite this reduction, the group of patients who breast fed their babies tight after the delivery increased of 50%. It is important to notice that the absolute number of mothers who did so remains relatively low.

Moreover, the percentage of mothers who started with breast-feeding within the first eight (8) hours following the delivery increased considerably from 14 in the basic survey to 24 in the final one, whereas those who waited more than 8 hours fell around 20%.

Table #3 shows the difference found in the two other surveys related to the mothers' nutritional practices regarding their children. As shown in this table, the percentage of mothers who give concentrated milk to their children increased of 33. Those who provide them with semi solid food lightly fell; from 96% in 1993 to 91% in 1996. Fruit and vegetables consumption also increased. This increase reached 11% for yellow fruits and 14% for green vegetables. This survey also revealed a higher utilization of meat and eggs in infants' diet. Meat and fish consumption increased by 6,7% and eggs by 53%.

The question related to the necessary ways to facilitate the milk flow provoked many questions, which are listed in table #4. In comparison with the basic survey, a significant difference has been noted. However, 50% of interviewed mothers mentioned application of methods different from those suggested in the questionnaire; the most frequent method mentioned among those was the tea made from papaya leaves.

The mothers' knowledge level regarding the insertion of other ingredients in infants' food was also assessed. As indicated in table #5, 35% of interviewees thought that they should start before infant is one month. A relatively high reduction was noticed during the course of the second study. On the other hand, the percentage of those mothers who confirmed this period is between 1 and 3 months lightly increased.

The study emphasized the knowledge of different types of foods protecting the sight. Besides breast milk, all the protecting foods proposed were at different levels mentioned. The degree of knowledge significantly improved after the implementation of the project (Table #6).

From the previous situation, it emerged that the final survey tended to indicate an improvement of mothers nutritional knowledge regarding their infants. This improvement is characterized by an important increase of the number of breast fed infants after delivery.

The proportion of mothers who wait for more than 8 hours before giving breast to their new born relatively decreased. Also, the number of mothers who practice exclusive breast feeding seem to be increasing because the percentage of surveyees who said they added other components in children foods at an early stage decreased a little bit. The insertion of other components before the first three months after birth fell from 83% in 1993 to 73% in 1996 (Table #3).

C. GROWTH MONITORING AND VITAMIN A COVERAGE

Growth monitoring activities are presented in tables #7 & 8. They show a remarkable improvement. In the basic survey only one out of thirteen was enrolled in a growth monitoring session while in the final survey the same services were provided to 64% of the children. In the same, the percentage of children who have received at least one dose of Vitamin A increased from 31 to 57, representing 85% increase certainly due to the activities of the project.

D. KNOWLEDGE AND PRACTICE ON DIARRHEA MANAGEMENT

In the final evaluation, despite the improvement of the knowledge of diarrhea prevention methods noticed among mothers noticed in the final evaluation, the prevalence of this disease raised of 8% in 1996. The cause of this increase is not well known; it may be related to season variations, for these surveys were realized at different periods of the year. Despite all, this last group seem to better manage this disease.

a) A better nutritional practice regarding infants with diarrhea.

The proportion of mothers who breast feed their infants in diarrhea cases less often decreased a bit. It was at 6,4% in 1993 while falling in 1996 to 3.7% (table #7). The proportion of mothers who declare giving more liquid to the infants, lightly increased from 30 to 33% during those two periods. The proportion which does not change the liquid consumption frequency also increased. It was

around 36% in 1993 and attained 46% in 1996 (**fable #11**). In the same fashion, the rhythm of solid food consumption revealed to be more frequent in the final survey, since the number of mothers who said they provided their ill infants with more solid food increased from 14 to 22%. (**fable #12**).

b) A treatment system focussed on diarrhea dehydration prevention and which avoids at the same time complications of this disease.

Oral Rehydration Therapy increased by 46% in the final survey. On the other hand, tea and non prescribed drug consumption fell considerably. (**Table #14**)

c) A light increase in searching for treatment and advice.

In 1993, about 39% of mothers said to be searching for treatment or asking advice for their infants with diarrhea. In this survey, 44% of the mothers said that their infants have had diarrhea, and that they have looked for treatments and advice. To that effect, the institutions channels were much more used in 1996, while parent role as an advice source considerably fell.

The tendency to search treatments for children with diarrhea is certainly due to the improvement of their knowledge on the signs of severity of this disease. The evolution of the knowledge of these signs is reported in **fable #15**.

E. Knowledge on vaccination and coverage obtained

The results of the mothers' knowledge on preventable diseases by vaccination were not specified in the basic survey. This issue was considered during this study and the correct answers were classified as follows:

Tetanus (48%); measles (42%); tuberculosis (40%); whooping cough (19%); polio (12%); diphtheria (4%). The relatively important percentage of surveyees (13%) who consider boil (bouton) as a disease avoidable through vaccination, seem to think of measles. As a matter of fact, one of the signs of this disease is maculo popular lesion which spread on the skin and were known in the current language as (bouton) boil.

The two main erroneous answers regarding preventable diseases through vaccination were fever (57%) and malaria (41%).

Thus, the degree of knowledge of protective effects of vaccination remains relatively low. Despite all the vaccinal coverage of infants age 12-23 months increased. In fact, before the project, only 4,5% of one year old infants were totally immunized. After the project, this indicator increased by 32,4%. The results evaluation by type of vaccine confirm infants vaccinal status improvement (see graph)

F. MATERNAL CARE AND TETANUS TOXOID VACCINATION

The evolution of prenatal visits attended by pregnant women has been studied in those two surveys. The results show a higher utilization of these services in 1996 characterized by a raise of 24% in comparison with the basic survey. This raise may be imputable to the project which makes a higher proportion of mothers aware of the necessity to see a physician during their pregnancy (Tables # 26 and 27).

Furthermore, during the final evaluation of the surveyees, an improvement of their knowledge about the importance of tetanus toxoid vaccine (table 20) was observed. In fact, before the project was put in place, only 31% of mothers were aware that the tetanus toxoid could immunize both mother and infant against tetanus. After the project, this proportion raised to 70%. Perhaps linked to improvement of knowledge of protective effect of this vaccine, the proportion of surveyees who received at least two (2) doses during their pregnancy raised from 57% in 1993 to 87% in 1996, representing a raise close to 52%.

G. FAMILY PLANNING COVERAGE

The proportion of mothers who were pregnant at the time of the basic study was around 8%. In 1996, it increased at 10%. This raise seems to be linked to an important fall of the family planning utilization. In fact, before the project interventions, 45% of interviewed mothers said they were using a family planning method. This figure needed to be considered with much caution. As a matter of fact, even in the areas where an active family planning program existed, such a figure was rarely attained in Haiti. In 1996, the family planning prevalence is at 16%. The comparison of methods used is presented in table #30. Before the project, family planning female users used more pill, injections and condom, and abstinence as natural method. After the project, the family planning utilization profile somewhat changed. Injections remain the principal method used (56%), less than breast feeding (21%) and pill (14%).

The low results obtained in the family planning field are due to the fact that these activities could not be realized due to the unavailability of funds. Despite all, female contraceptive prevalence obtained from the final survey results (16%), lightly exceeds the national level (12%).

H. AIDS PREVENTION

The project had planned to improve the knowledge of the target groups on how to protect oneself against AIDS.

As shown in table 31, the results vary depending upon the method indicated. Basically, changes tended to fall referring to the following protection methods: (abstinence and utilization of sterilized tool) and increase significantly for marital fidelity, utilization of condom, sexual relations with infected persons.

DIFFICULTIES ENCOUNTERED

Many serious logistic problems were met due to the embargo imposed by the international community. It took a long period of time (many months) to receive the project vehicles from the USA and to have them free of charge from customs. These American-made vehicles were not appropriate for the bad roads of the Nippes area and were often broken down.

Regarding the motorcycles, the problem was worse as they were one of the key tools of operation for the vaccinators. Finally, the motorcycles were delivered in July 1995, one year before the end of the project. The mules were unable to assure the transportation of the animators. Buyers were misled as the mules were not in a good health condition.

2. Instability of the staff

First of all, the vaccination and animators' supervisor had a motorcycle accident and had to stay in bed for a period of two months. This happened as the activities were being launched. At the end of the first year, the educator also had an accident and was absent for three months. The project administrator had moved for family reasons. One vaccinator had a motorcycle accident and it was difficult to hire and train a new someone to replace him. In addition, during the second trimester of 1995, the physician who was responsible for the project was unavailable, causing a lack of coordination and monitoring of the activities. He was replaced six months later.

The hiring of the staff was not easy. The technicians were very demanding regarding the deployment to an inaccessible area such as the Nippes area.

These long and repeated staff absences considerably hindered the course of the activities and explain the poor level of performance during the last two years.

3. Dissatisfaction of health promoters

The health promoters were not employees, but they always had salary claims. They were chosen as part of the participation of the community in the project. They had an allowance and a per diem for the task they were performing. They were not paid for the required services. In a society where primary needs are not satisfied, it is presently very difficult for some people in a community to volunteer their time.

LESSONS LEARNED

1. Some of the project objectives were not achievable as stated. The human and material resources were insufficient to reach these too ambitious objectives. As an example, the objective of weighing 80% of infants age 0-23 months eight times during the third year, when it was quite impossible to operate more than five vaccination posts in the same site during the same year.
2. American made vehicles, indeed very comfortable, are not strong enough to run on the roads in the Nippes area. Experience has proved that Japanese jeeps are much more useful. Therefore such essential equipments should be put under the matching funds when the budget is being built.
3. As a regard to the vaccination against tetanus, it was difficult to reach the women ages 15-49. The vaccination of school children allowed us to considerably improve the performance. Very often, mothers do not accompany their children to the rally posts. This is the main reason why the door to door vaccination was tried in order to reach these women. This is only possible with the reinforcement of human and material resources.
4. According to rural tradition, women do not leave their house within the first month after delivery. This was a serious obstacle to the distribution of the Vitamin A to the breast feeding mothers. The unique way to reach them is to use the health promoters and/or the

TBAs.

5. Generally, the mothers accept oral rehydration packets and recognize the importance of ORT. However, they are not interested in buying the packets when other organizations provide them free of charge. A unique policy should be stated as to the provisional these packets.
7. The community animation aspect of the project was not deeply implemented. This was due partly to insufficient staff. Some of the community groups formed were not active very soon. It was understood that without the implementation of income generating activities, it was very difficult to keep these groups alive.
8. The level of vaccination achievements shown in the daily statistics is not often in accordance with the real situation because of the delivery of services to children who do not live in the target area. For that reason action needs to be taken to conduct a census of the additional areas.
9. Child's nutritional status did not improve significantly through educational sessions only. Centers for nutritional demonstration and recuperation should be planned.
10. The health promoters enthusiasm tended to disappear a few days after they started working. It was understood that they did not feel comfortable to always volunteer their time and wish an improvement of their financial situation.
11. The community leaders always supported the project but were not well informed on the activities and the results obtained. Contact with leaders should be reinforced and even their participation. The beneficiaries generally approve the project realizations and do not think they must ensure continuation. The implementation and reinforcement of the community groups would improve the situation.

CONTINUATION OF THE PROJECT

As a whole, the project is well perceived by the community which gives it some support for the establishment of the rally posts and the selection of the field operation sites staff selection.

Messages are usually circulated on through churches and schools. Position and furniture are provided by the community.

Collaboration between the project and the Ministry of Public Health was always good. Some employees of this institution took part at the training sessions. An example of this collaboration is the TBAs training and the activities monitored by both the Ministry of Public Health and the project, Hopefully TBAs' activities will be pursued and we hope that they will keep on providing good services to the pregnant women and refer those at risk to the health centers.

Nevertheless, the subsequent continuation of the project is not guaranteed. Human resources indeed exist, not the financial ones. With respect to the existing services good perspectives exist. The attendance rate of the rally posts is a good indication of the high level of acceptance. However, the community can't afford taking charge of the activities costs. Health promoters dissatisfaction and their resistance to volunteer need to take into account.